

Date: Mon, 11 Oct 93 04:30:13 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V93 #74  
To: Ham-Ant

Ham-Ant Digest                      Mon, 11 Oct 93                      Volume 93 : Issue    74

Today's Topics:

    ??Thick or thin diapole wire best??? (2 msgs)  
        Antenna Analysis Programs  
        Automobile ground-plane ground needed?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Sat, 9 Oct 1993 17:17:11 GMT  
From: swrinde!gatech!wa4mei!ke4zv!gary@network.ucsd.edu  
Subject: ??Thick or thin diapole wire best???  
To: ham-ant@ucsd.edu

In article <CEM2EC.8q0@ucdavis.edu> szhall@bullwinkle.ucdavis.edu () writes:

>

>

>I just put up a 40 meter diapole and it works very well, I also use it for  
>other bands with a tuner. I am using RG 58U feed line. My question is  
>this: Other than strength is it better to use thicker wire for a ant.  
>Someone one told me if I use a thick wire I don't need to adjust the  
>tuner so often between freq. Thicker wire is broad band. What's ur  
>comment..Tnx for reading this..Jeff

"Fat" dipoles are broader banded than "thin" ones, but by fat we mean  
on the order of 10% the length of the antenna, IE sewer pipe, not wire.  
Use a wire that's heavy enough to carry the current, and to support  
itself, otherwise don't worry about bandwidth, you can't make the wire  
thick enough to matter.

Gary

--

Gary Coffman KE4ZV	"If 10% is good enough	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	for Jesus, it's good	uunet!rsiatl!ke4zv!gary
534 Shannon Way	enough for Uncle Sam."	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-Ray Stevens	

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Date: Sun, 10 Oct 93 06:34:20 GMT

From: library.ucla.edu!agate!howland.reston.ans.net!wupost!csus.edu!netcom.com!

netcomsv!bongo!skyld!jangus@network.ucsd.edu

Subject: ??Thick or thin diapole wire best???

To: ham-ant@ucsd.edu

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> comment..Tnx for reading this..Jeff

At my old QTH (more room to play) I put up a cage dipole. Several embroidery hoops, and 8 strands of wire to make the dipole legs. 40 meters stayed good for the entire band. (I know what you're thinking, typical ad hype, anything less than 5:1 SWR. Not so, better than 1.5:1 across the band!)

Amateur: WA6FWI@WA6FWI.#SOCA.CA.USA.NA	"It is difficult to imagine our
Internet: jangus@skyld.tele.com	universe run by a single omni-
US Mail: PO Box 4425 Carson, CA 90749	potent god. I see it more as a
Phone: 1 (310) 324-6080	badly run corporation."

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Date: Sun, 10 Oct 1993 13:11:29 GMT

From: news.cerf.net!pagesat!indirect.com!indirect.com!kg7bk@network.ucsd.edu

Subject: Antenna Analysis Programs

To: ham-ant@ucsd.edu

bob@unlv.edu (Robert W. Maichle) writes:

>I am a ladder-line and dipole type who has never had any occasion  
>to use a subset of NEC. Bob Maichle - K7SN

Bob, I am also a ladder-line and dipole type but I have used W5GYJ's ELNEC program and MicroSmith to tell me what range of impedences with which I am dealing. I have used ELNEC to tell me what kind of radiation pattern, i.e., direction of lobes and radiation angle. For instance, a 105' center-fed dipole has four 9 dbi lobes on 17 meters and none are broadside to the antenna. This also applies to G5RVs. I've only ever used ELNEC which is very easy to learn and use. It does everything that I have ever wanted to do.

I have used ELNEC to model the idea of putting a shorter dipole in parallel a few inches under my 105' dipole to bring down the SWR for an easier match with my antenna tuner... it works very well and changes the radiation pattern from four 9 dbi lobes to six 7 dbi lobes on 17 meters.

I am not associated with W7EL in any way but admire his product.  
W7EL is Roy Lewallen, P.O.Box 6658, Beaverton, OR 97007

73, Cecil, kg7bk@indirect.com

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Date: Sat, 9 Oct 1993 17:14:44 GMT  
From: library.ucla.edu!europa.eng.gtefsd.com!gatech!wa4mei!ke4zv!  
gary@network.ucsd.edu  
Subject: Automobile ground-plane ground needed?  
To: ham-ant@ucsd.edu

In article <1993Oct8.235642.1@wcsup.ctstateu.edu> ritterbus001@wcsup.ctstateu.edu writes:

>Hi, all,

>

>When I use the 2m HT (with its own battery) in the car connected to a mag-mount  
>1/4 wave, there is no electrical connection of the radio "ground" to the  
>"ground-plane" of the car's metal body. Would it improve my radiation to  
>provide a ground? Will the rule still be the same when I get my 5/8 wave  
>mag-mount working and connected?

You \*do\* have an electrical connection to the groundplane. It's provided by the capacitance of the magmount to the auto roof. Remember, we're concerned with a \*RF\* connection. We don't care whether there's a DC connection or not.

Gary

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Gary Coffman KE4ZV	"If 10% is good enough	gatech!wa4mei!ke4zv!gary
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End of Ham-Ant Digest V93 #74

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